



**Recommendation ITU-R M.1170-1**  
(03/2012)

**Morse telegraphy procedures  
in the maritime mobile service**

**M Series**  
**Mobile, radiodetermination, amateur  
and related satellite services**

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*Note: This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.*

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## RECOMMENDATION ITU-R M.1170-1\*

**Morse telegraphy procedures in the maritime mobile service**

(1995-2012)

**Scope**

This Recommendation provides the information on the general use of Morse telegraphy, methods of calling, rules on the start and end of working with Morse signals.

The ITU Radiocommunication Assembly,

*considering*

a) that since some administrations may still use Morse telegraphy for the maritime mobile service,

*recommends*

**1** that Morse telegraphy in the maritime mobile service should be performed in accordance with Annex 1.

**Annex 1****Section I. Introduction**

§ 1. The use of the Morse code signals is not obligatory any more. Nevertheless due to the fact that the radiotelegraphy is less susceptible to interference and it is the most efficient means in case of emergency or disaster, the usage of Morse code in some areas by some operators could be practical and sometimes the only available means of communications.

§ 2. The service abbreviations given in Recommendation ITU-R M.1172 are to be used.

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\* This Recommendation should be brought to the attention of the International Maritime Organization (IMO), and the Telecommunication Standardization Sector (ITU-T).

*Note by the Secretariat:* The references made to the Radio Regulations (RR) in this Recommendation refer to the RR as revised by the World Radiocommunication Conference 1995. These elements of the RR will come into force on 1 June 1998. Where applicable, the equivalent references in the current RR are also provided in square brackets.

## Section II. Preliminary operations

§ 3. (1) Before transmitting, a station shall take precautions to ensure that its emissions will not interfere with transmissions already in progress; if such interference is likely, the station shall await an appropriate break in the communications in progress.

(2) If, these precautions having been taken, the emissions of the station should, nevertheless, interfere with a transmission already in progress, the following rules shall be applied:

- a) the ship station whose emission causes interference to the communication of a mobile station with a coast station shall cease sending at the first request of the coast station;
- b) the ship station whose emission causes interference to communications already in progress between mobile stations shall cease sending at the first request of one of the other stations;
- c) the station which requests this cessation shall indicate the approximate waiting time imposed on the station whose emission it suspends.

## Section III. Calls by Morse radiotelegraphy

### A. General

§ 4. (1) As a general rule, it rests with the ship station to establish communication with the coast station. For this purpose, the ship station may call the coast station only when it comes within the service area of the latter, that is to say, that area within which, by using an appropriate frequency, the ship station can be heard by the coast station.

(2) However, a coast station having traffic for a ship station may call this station if it has reason to believe that the ship station is keeping watch and is within the service area of the coast station.

§ 5. (1) In addition, each coast station shall, so far as practicable, transmit its calls in the form of "traffic lists" consisting of the call signs in alphabetical order of all ship stations for which it has traffic on hand. These calls are made at specified times fixed by agreement between the administrations concerned and at intervals of at least two hours and not more than four hours during the working hours of the coast station.

(2) In the bands between 4000 kHz and 27500 kHz, however, traffic lists may be transmitted at intervals of not less than one hour.

(3) Continuous or frequently repeated emissions of its call sign or of the enquiry signal CQ by a coast station should be avoided (see RR No. 15.1 [No. 1799]).

(4) Coast stations shall transmit their traffic lists on their normal working frequencies in the appropriate bands. This transmission shall be preceded by a general call to all stations (CQ).

(5) The call to all stations announcing the traffic list may be sent on a calling frequency in the following form:

- CQ, not more than three times;
- the word DE;

- the call sign of the calling station, not more than three times;
- QSW followed by the indication of the working frequency or frequencies on which the traffic list is about to be sent.

In no case may this preamble be repeated.

(6) The hours at which coast stations transmit their traffic lists and the frequencies and classes of emission which they use for this purpose shall be stated in the List of Coast Stations and special service stations.

(7) Ship stations should, as far as possible, listen to the traffic lists transmitted by coast stations. On hearing their call sign in such a list they shall reply as soon as they can do so.

(8) When the traffic cannot be sent immediately, the coast station shall inform each ship station concerned of the probable time at which working can begin, and also, if necessary, the frequency and class of emission which will be used.

§ 6. When a coast station receives calls from several ship stations at practically the same time, it decides the order in which these stations may transmit their traffic. Its decision shall be based on the priority (see RR No. 53.1 of the radiotelegrams that ship stations have on hand and on the need for allowing each calling station to clear the greatest possible number of communications.

§ 7. (1) When a station called does not reply to a call sent three times at intervals of two minutes, the calling shall cease and shall not be renewed until after an interval of fifteen minutes.

(2) In the case of a communication between a station of the maritime mobile service and an aircraft station, calling may be renewed after an interval of five minutes, notwithstanding (1) § 7. above.

(3) Before renewing the call, the calling station shall ascertain that the station called is not in communication with another station.

(4) If there is no reason to believe that harmful interference will be caused to other communications in progress, the provisions of RR No. 51.71 and § 7.(1) are not applicable. In such cases the call, sent three times at intervals of two minutes, may be repeated after an interval of less than fifteen minutes but not less than three minutes.

§ 8. Ship stations shall not radiate a carrier wave between calls.

§ 9. When the name and address of the administration or private operating agency controlling a ship station are not given in the appropriate list of stations or are no longer in agreement with the particulars given therein, it is the duty of the ship station to furnish as a matter of regular procedure, to the coast station to which it transmits traffic, all the necessary information in this respect.

§ 10. (1) The coast station may, by means of the abbreviation TR, ask the ship station to furnish it with the following information:

- a)* position and, whenever possible, course and speed;
- b)* next port of call.

(2) The information referred to in § 10.(1) above, preceded by the abbreviation TR, should be furnished by ship stations whenever this seems appropriate, without prior request from the coast station. The provision of this information is authorized only by the master or person responsible for the ship or other vessel carrying the ship station.



*B. Calls to several stations*

§ 11. Two types of calling signal “to all stations” are recognized:

- a)* call CQ followed by the letter K (§ 12, § 13);
- b)* call CQ not followed by the letter K (§ 14).

§ 12. Stations desiring to enter into communication with stations of the maritime mobile service without, however, knowing the names of any such stations within their service area may use the enquiry signal CQ in place of the call sign of the station called in the calling formula, the call being followed by the letter K (general call to all stations in the maritime mobile service with request for reply).

§ 13. In regions where traffic is congested, the use of the call CQ followed by the letter K is forbidden. As an exception it may be used with signals denoting urgency.

§ 14. The call CQ not followed by the letter K (general call to all stations without request for reply) is used before the transmission of information of any kind intended to be read or used by anyone who can intercept it.

§ 15. The call CP followed by two or more call signs or by a code word (call to certain receiving stations without request for reply) is used only for the transmission of information of any nature intended to be read or used by the persons authorized.

## **Section IV. Method of calling, reply to calls and signals preparatory to traffic**

### *A. Method of calling – Morse telegraphy*

§ 16. (1) The call consists of:

- the call sign of the station called, not more than twice;
- the word DE;
- the call sign of the calling station, not more than twice;
- the information required by § 18.(1) and, as appropriate, by § 19.(1) and § 19.(2);
- the letter K.

(2) For normal calling, when the requirements mentioned in (3) below have been met, the call specified in § 16.(1) above may be transmitted twice at an interval of not less than one minute; thereafter it shall not be repeated until after an interval of three minutes.

(3) In order to reduce interference, ship stations shall, within the means at their disposal, endeavour to select for calling the band with the most favourable propagation characteristics for effecting reliable communication. In the absence of more precise data, a ship station shall, before making a call, listen for the signals of the station with which it desires to communicate. The strength and intelligibility of such signals are useful as a guide to propagation conditions and indicate which is the preferable band for calling.

*B. Frequency to be used for calling  
and for preparatory signals*

§ 17. (1) For making the call and for transmitting preparatory signals, the calling station shall use a frequency on which the station called keeps watch.

(2) A ship station calling a coast station in any of the frequency bands between 4 000 kHz and 27 500 kHz shall use a frequency in the calling band specially reserved for this purpose.

*C. Indication of the frequency to be used for traffic*

§ 18. (1) The call, as described in § 16.(1), shall contain the service abbreviation indicating the working frequency and, if useful, the class of emission which the calling station proposes to use for the transmission of its traffic.

(2) When the call by a coast station does not contain an indication of the frequency to be used for the traffic, this indicates that the coast station proposes to use for traffic its normal working frequency shown in the List of Coast Stations and special service stations.

*D. Indication of priority, of the reason for the call,  
and of transmission of radiotelegrams in series*

§ 19. (1) The calling station shall transmit the service abbreviation after the above-mentioned preparatory signals to indicate a priority message other than a distress, urgency or safety message (see RR No. 53.1) and to indicate the reason for the call.

(2) Moreover, when the calling station wishes to send its radiotelegrams in series, it shall indicate this by adding the service abbreviation for requesting the consent of the station called.

*E. Form of reply to calls*

§ 20. The reply to calls consists of:

- the call sign of the calling station, not more than twice;
- the word DE;
- the call sign of the station called, once only.

*F. Frequency for reply*

§ 21. Except as otherwise provided in these Regulations, for transmitting the reply to calls and to preparatory signals, the station called shall use the frequency on which the calling station keeps watch, unless the calling station has specified a frequency for the reply.

*G. Agreement on the frequency to be used for traffic*

§ 22. (1) If the station called is in agreement with the calling station, it shall transmit:

- a)* the reply to the call;
- b)* the service abbreviation indicating that from that moment onwards it will listen on the working frequency announced by the calling station;
- c)* if necessary, the indications referred to in § 23.;

- d) if useful, the service abbreviation and figure indicating the strength and/or intelligibility of the signals received (see Recommendation ITU-R M.1172);
- e) the letter K if the station called is ready to receive the traffic of the calling station.

(2) If the station called is not in agreement with the calling station on the working frequency to be used, it shall transmit:

- a) the reply to the call;
- b) the service abbreviation indicating the working frequency to be used by the calling station and, if necessary, the class of emission;
- c) if necessary, the indications specified in § 23.

(3) When agreement is reached regarding the working frequency which the calling station shall use for its traffic, the station called shall transmit the letter K after the indications contained in its reply.

#### *H. Reply to the request for transmission by series*

§ 23. The station called, in replying to a calling station which has proposed to transmit its radiotelegrams by series (see § 19.(2)), shall indicate, by means of the service abbreviation, its acceptance or refusal. In the former case it shall specify, if necessary, the number of radiotelegrams which it is ready to receive in one series.

#### *I. Difficulties in reception*

§ 24. (1) If the station called is unable to accept traffic immediately, it shall reply to the call as indicated in § 22.(1) *a*) to *e*), but it shall replace the letter K by the signal • – • • • (wait), followed by a number indicating in minutes the probable duration of the waiting time. If the probable duration exceeds ten minutes (five minutes in the case of an aircraft station communicating with a station of the maritime mobile service), the reason for the delay shall be given.

(2) When a station receives a call without being certain that such a call is intended for it, it shall not reply until the call has been repeated and understood. When, on the other hand, a station receives a call which is intended for it but is uncertain of the call sign of the calling station, it shall reply immediately using the service abbreviation in place of the call sign of this latter station.

## **Section V. Forwarding (Routing) of traffic**

### *A. Traffic frequency*

§ 25. (1) As a general rule, a station of the maritime mobile service shall transmit its traffic on one of its working frequencies in that band in which the call has been made.

(2) In addition to its normal working frequency, printed in heavy type in the List of Coast Stations and special service stations, a coast station may use one or more supplementary frequencies in the same band, in accordance with the provisions of RR Article 52 .

(3) The use of frequencies reserved for calling shall be forbidden for traffic, except distress traffic (see RR Chapter VII).



(4) If the transmission of a radiotelegram is to take place on a frequency and/or with a class of emission other than those used for the call, the transmission of the radiotelegram shall be preceded by:

- the call sign of the station called, not more than twice;
- the word DE;
- the call sign of the calling station, once only.

(5) If the transmission is to be made on the same frequency and with the same class of emission as the call, the transmission of the radiotelegram shall be preceded, if necessary, by:

- the call sign of the station called;
- the word DE;
- the call sign of the calling station.

#### *B. Numbering in daily series*

§ 26. (1) As a general rule, radiotelegrams of all kinds transmitted by ship stations shall be numbered in a daily series; number 1 shall be given to the first radiotelegram sent each day to each separate station.

(2) A series of numbers which has begun in radiotelegraphy should be continued in radiotelephony and vice versa.

#### *C. Long radiotelegrams*

§ 27. (1) In cases where both stations are able to change from sending to receiving without manual switching, the transmitting station may continue to send until completion of the message or until the receiving station breaks in on the transmission with the service abbreviation BK. Before commencing, both stations normally agree on such a method of working by means of the abbreviation QSK.

(2) If this method of working cannot be employed, long radiotelegrams, whether in plain language or in secret language, shall, as a general rule, be transmitted in sections, each section containing fifty words in the case of plain language and twenty words or groups if secret language is used.

(3) At the end of each section the signal · · – – · · (?) meaning “Have you received the radiotelegram correctly up to this point?” shall be transmitted. If the section has been correctly received, the receiving station shall reply by sending the letter K and the transmission of the radiotelegram shall be continued.

#### *D. Suspension of traffic*

§ 28. When a ship station transmits on a working frequency of a coast station and causes interference with the transmission of such a coast station, it shall suspend working at the first request of the latter.

## Section VI. End of traffic and work

### A. Signal for the End of Transmission

§ 29. (1) The transmission of a radiotelegram shall be terminated by the signal · – · – · (end of transmission), followed by the letter K.

(2) In the case of transmission by series, the end of each radiotelegram shall be indicated by the signal · – · – · (end of transmission) and the end of the series by the letter K.

### B. Acknowledgement of Receipt

§ 30. (1) The acknowledgement of receipt of a radiotelegram or a series of radiotelegrams shall be given by the receiving station in the following manner:

- the call sign of the sending station;
- the word DE;
- the call sign of the receiving station;
- the letter R followed by the number of the radiotelegram; *or*
- the letter R followed by the number of the last radiotelegram of a series.

(2) The acknowledgement of receipt shall be transmitted by the receiving station on the traffic frequency (see § 25.(1) and § 25.(2)).

### C. End of Work

§ 31. (1) The end of work between two stations shall be indicated by each of them by means of the signal · · · – · – (end of work).

(2) The signal · · · – · – (end of work) shall also be used:

- when the transmission of radiotelegrams of general information, meteorological information and general safety notices is finished;
- when transmission is ended in long-distance radiocommunication services with deferred acknowledgement of receipt or without acknowledgement of receipt.

## Section VII. Control of working

§ 32. The provisions of this Section are not applicable in cases of distress, urgency or safety.

§ 33. In communications between coast stations and ship stations, the ship station shall comply with the instructions given by the coast station, in all questions relating to the order and time of transmission, to the choice of frequency and class of emission, and to the duration and suspension of work.

§ 34. In communications between ship stations, the station called shall control the working in the manner indicated in § 33. above. However, if a coast station finds it necessary to intervene, these stations shall comply with the instructions given by the coast station.

## Section VIII. Tests

§ 35. When it is necessary for a ship station to send signals for testing or adjustment which are liable to interfere with the working of neighbouring coast stations, the consent of these stations shall be obtained before such signals are sent.

§ 36. When it is necessary for a station in the maritime mobile service to make test signals, either for the adjustment of a transmitter before making a call or for the adjustment of a receiver, such signals shall not be continued for more than ten seconds and shall be composed of a series of VVV followed by the call sign of the station emitting the test signals.

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